Understanding the evidence supporting school-based mentoring

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School-based Mentoring: As Effective as Tutoring

Well-run school-based mentoring programs for elementary and middle school aged youth can have impacts on truancy, attendance, and misbehavior that are similar in "size" (d =.25) to the impact of the typical academic tutoring program on reading achievement (d = .26) (Herrera, et al., 2007; Ritter, Barnett, Denny, & Albin, 2009).

A meta-analysis by Wheeler, Keller and DuBois (2010) of the effects of school-based mentoring averaged across the three most recent, large-scale studies:

U.S. Department of Education (Bernstein, Rappaport, Olsho, Hunt, & Levin, 2009),
Big Brothers Big Sisters (Herrera, et al., 2007), and
Communities in Schools (Karcher, 2008)

reports school-based mentoring resulted in statistically significant effects on truancy, attendance, and classroom misbehavior as well as in peer acceptance, the quality of students' relationships with adults, and academic self-efficacy. Other studies (e.g., of *YouthFriends*) also report improved school connectedness (Karcher, 2005; Portwood, Ayers, Kinnison, Waris, & Wise, 2005).

School-based Mentoring: As (or More) Effective as other After School Programs

School-based mentoring (SBM) achieves results similar in size to (or larger than) other school-based after-school programs (see next page, Durlak & Weissberg, 2007). However, staff-lead after school programs don't allow the public to become more familiar with the public schools; its hard-working teachers, administrators, and staff; and local schools' needs, successes and achievements.

Cautions and Caveats

Lesson 1: One-on-One Mentoring Minimizes Deviancy Training
Typically, one-on-one mentoring programs have another benefit over after school programs that work with students in groups. Mentoring does not put "delinquent" youth (those whose actions tend to undermine authority) into a group, which provides fertile ground for deviancy training (Dishion, McCord, & Poulin, 1999; Dodge, Dishion, & Lansford, 2006)

Lesson 2: Misguided Mentoring (e.g., When Mentors Tutor, Teacher or Parent)
Mentors who engage too quickly in academic activities, especially when such assistance is not requested by the youth, can undermine the quality of the relationship, the frequency of meetings, and length of the matches—whether volunteers choose to return for multiple-year matches (D. M. Hansen & Larson, 2007; K. Hansen & Corlett, 2007; Karcher, 2004).

Lesson 3 (point of today's talk): The Importance of Best Practices
As in the studies described below on tutoring and after school programs, the impact of mentoring depends on (and can be multiplied) by the support provided to volunteers, training of staff, and involvement of teachers, school staff, and parents. This is where we should focus our attention.

Goals of Today's Talk

1. To explain the findings from the 2 largest school-based mentoring evaluations
2. Compare the effects of school-based mentoring to tutoring and after school programs
3. Underscore the importance of programmatic support in mentoring program impacts

Study #1: *Big Brothers Big Sisters School-based mentoring Impact Study* (Herrera et al., 2007)

Littles/Mentees fared significantly better than controls in:

1. Overall academic performance (T: Teacher Reported)(effect size, Cohen's *d* = .09)
2. Written and oral language (T; *d* = .09)
3. Science (T; *d* = .10)
4. Quality of class work (T; *d* = .12)
5. Number of assignments completed (T; *d* = .14)
6. **Fewer absence without an excuse (T; *d* = .26)**
7. **Engaging in serious school misconduct (T; *d* = .24)**
8. **Less likely to start to skip school (Youth Reported; *d* = .25)**
9. Scholastic efficacy (Youth Reported; *d* = .11)
10. More likely to have a "significant adult" in their lives) (Youth Reported; *d* = .18)

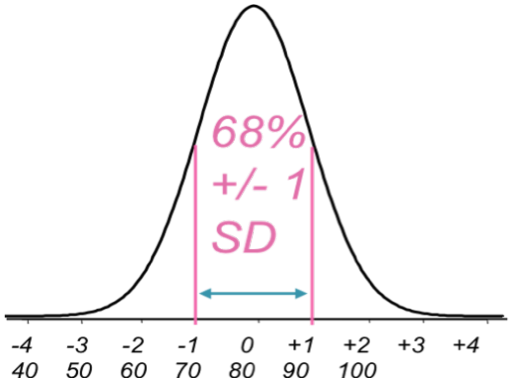
In Table 13 of Herrera's 2007 impact study (listed above) you find that the BBBSA SBM impacts on absences, initiating skipping school, and school misconduct are around *d* = .25. The effect size is a quarter of a standard deviation, or a d = .25. What does that mean?

Here Herrera is stating that mentored kids are .25 of a standard deviation (SD) "better" (which means lower) than the non-mentored kids at the end of the school year.

Whether .25 is meaningful or statistically significant depends on how much the actual scores of the mentees and the control group vary around their mean—that is, how big the SD is.

A *d* = .25 (or 1/4 of a standard deviation) is about the same "size" as tutoring's impact on reading achievement (see Ritter, 2009). Let's use the effect of tutoring on grades as an example, because grades reflect a meaningful scale.

To understand the "size" (*d* = .25) impact of the BBBSA SBM program on truancy and misconduct, consider "size" of the impact of tutoring on reading skills using grades as the outcome measure. If a student's grade point average (GPA) in a school is 80 (a "B-") before the program starts, and there is a one grade level standard deviation (10 points), this means that 68% of all students score between one grade level above and below 80: 68% of student's scores are between a C and an B+/A- (or a 70 and a 90). So, after tutoring, reading grades for tutored youth were 82.5.



Whether the increase of 2.5 points matters may depend on the youth—whether the starting GPA was 69, 75, or 89. Similarly, mentoring achieves a similar "size" effect.

In the U.S. DOE study, see Appendix D for the findings that were not subjected to the Benjamini-Hochberg test and which used the scales in the manner they were intended (validated). When the DOE evaluation used the regular significance level ($p < .05$), in Appendix D, the findings align nicely w/ the BBBS SBM study.

DOE findings—using a 1-in-20 chance of a "false positive discovery"—are consistent w/ PPV findings
- Improved school efficacy (d = .09), p = .02
- Higher future orientation (d = .08), p = .04
- Lower truancy (d = .14), p = .02 (PPV found too)
- Lower absenteeism (d = .09), p = .04 (PPV too)
- Better relationships w/ adults (d = .09), p = .02

(PPV found mentees/Littles more likely to have a "significant adult" in their lives)

Impact Evaluation of the U.S. Department of Education's Student Mentoring Program

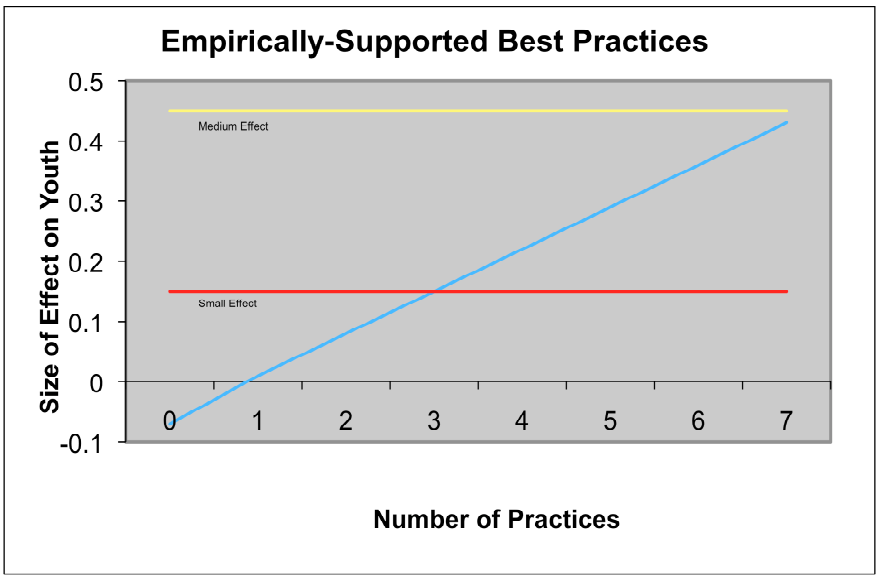
Final Report

Summary of Effects

Across evaluations of a range of school-based mentoring programs, Wheeler, DuBois, and Keller (2010) an average beneficial effect in the five following areas:
- Truancy (d=.18)
- Non-Familial Adult Relationships (d=.12)
- School-related Misconduct (d=.11)
- Perceived Scholastic Efficacy (d=.10)
- Peer Support (d=.07)
- Absenteeism (d = .07)

Better practices = bigger outcomes

DuBois et al.'s (2002) meta-analysis also taught us that mentoring program effects are larger when programs better mentor the mentors through training, support, and program monitoring practice.



It is this type of increase in impact that *a program* can provide by increasing the presence of mentoring best practices: screening, training, monitoring, and supporting matches.

So too is evidence that better structured program yield bigger impacts. For example, in the Ritter (2009) report of volunteer tutoring program, impacts on reading skills differed substantially for programs that provided varying tutor support: unstructured (d = .14) vs. structured (d = .59).

Durlak, J. A., & Weissberg, R. P. (2007). *The impact of after-school programs that promote personal and social skills.* Chicago, IL: Collaborative for Academic, Social, and Emotional Learning (CASEL).

TABLE 3: MEAN EFFECTS FOR DIFFERENT OUTCOMES IN PARTICIPATING

OUTCOMES	MEAN EFFECT SIZE	N
Feelings and Attitudes		
Child self-perceptions	0.34*	22
School bonding	0.14*	28
Indicators of Behavioral Adjustment		
Positive social behaviors	0.19*	35
Problem behaviors	0.18*	42
Drug use	0.11*	27
School Performance		
Achievement tests	0.16*	20
School grades	0.11*	25
School attendance	0.10	21

TABLE 4: OUTCOMES FOR PROGRAMS THAT DID OR DID NOT MEET CRITERIA REGARDING THE USE OF EVIDENCE-BASED TRAINING APPROACHES

OUTCOME	MET CRITERIA			DID NOT
	ES	N	95% CI	ES
Feelings and Attitudes				
Child self-perceptions	0.35*	20	0.24-0.46	0.14
School bonding	0.26*	13	0.12-0.47	0.03
Indicators of Behavioral Adjustment				
Positive social behaviors	0.30*	18	0.19-0.41	0.06
Problem behaviors	0.26*	21	0.16-0.37	0.07
Drug use	0.22*	11	0.07-0.36	0.03
School Performance				
Achievement tests	0.31	10	0.16-0.46	0.03
School grades	0.24*	9	0.07-0.42	0.05
School attendance	0.15	9	-0.01-0.31	0.07

* Denotes mean effect is significantly different from zero at the .05 level